

### REMARKS

Reconsideration is respectfully requested. Claims 10-18, 27-34, 44-52, 62 and 64-70 were last presented for examination. Claims 16-18 and 50-52 have been canceled without prejudice. Claims 10-15, 27-34, 44-49, 62, and 64-70 have been amended, claims 71-87 have been added. Claims 10-15, 27-34, 44-49, 62, and 64-87 are presented for further examination. The specification has been amended. The Figure 3 of the drawing figures has been amended. No new matter has been added.

In brief, the invention relates to a remote control device that recognizes the identity of the user and interacts with a set-top box to provide selective programming and enhanced content based upon the identity of the user of the remote control. Preference and profile data, corresponding to the current user, is used to control the enhanced and/or interactive video output of the display. Video content and/or enhanced content can be selected or excluded based upon the comparison of tags that describe specific video content and the identity of the user of a personalized remote control. Recognition techniques can be employed to determine the actual content of a video stream on a video segment-by-segment basis to restrict or select video content based upon the identity of the user of a personalized remote control device.

### Drawings

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they include reference numerals 32-33, 35, 53, 96, and 148 not mentioned in the description. An amendment to the specification has been made to include a description of the reference numbers that appear in the drawings for reference numerals 32 and 35, as well as reference numbers for reference signs 32, 35, 96, and 148 that were inadvertently left out of the specification text. Figure 3 clearly shows the descriptions of the reference numerals and their associated connection; therefore, the duplication of these descriptions into the specification is not new matter. Reference numeral 33 was placed in the specification text replacing another reference numeral that was in typographical error. Reference sign 53 does appear within the text of the specification on page 7, line 18 referring "a look-up table (LUT)."

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they did not include 58 the following reference sign(s) mentioned in the description. Figure 3 has been amended to include reference number 58 which was inadvertently left out of the drawing between the “look-up table (LUT) 53” and “memory 63” as stated in the specification on page 7, lines 18-19. A red lined replacement drawing is attached.

### **35 USC 112 Rejections**

The Examiner rejected claims 16-18, and 50-52 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The examiner noted that these claims refer to “said tags”, which are not defined in the corresponding independent claims 10 and 44. Claims 16-18 and 50-52 have been canceled without prejudice in favor of a continuing, reissue and/or reexamination application.

### **Claim Objections**

The Examiner objected to claims 10-18, 27-34, 44-52, 62, and 64-70 because a comma was required between the claim numbers and “wherein”. Claims 11-15, 28-34, 45-49 and 64-70 have been amended to comply with the Examiners suggestions. Claims 10, 27 44 and 62 do not contain the phrase “A method/system of claim X, wherein”, and therefore, the Examiner objection is not applicable. Claims 16-18 and 50-52 have been canceled rendering the Examiner objections moot with regard to these claims.

The Examiner objected to claims 14-15, and 30-31 because a space is required between the claim numbers and “wherein”. Claims 14-15 and 30-31 have been amended to comply with the Examiners suggestions.

### **35 USC 102(e) Rejections**

The Examiner rejected claims 10, 12-14, 44, and 46-48 35 U.S.C. 102(e) as being anticipated by Nickum (U.S. Patent No. 6,359,661).

In brief, Nickum ('661) discloses a method of controlling access to television programming using a remote control device and allows this programming access to be user specific, where each viewer is restricted to viewing only certain programs and channels according to the programming controls embodied in the memory of the remote control device they are using. Nickum further discloses the ability to independently control access to television programs through the remote control device according to the unique user ID and program control data stored in the remote control device. In one disclosed embodiment, independent user profile data is stored in a remote control device that provides user customized programming via the remote control device. The remote control device may have one or more user profiles which can be activated by the user ID. Verification circuitry activates the user profile corresponding to the input user ID if the user profile matches the user ID stored in association with the user profile.

The Nickum reference discloses on the control of "program access" and "controlling television programming" and more specifically "denying access" to selected programs and channels. Nickum defines television programming as "the functions of a television receiver, such as volume, channel access and display, and power off or on," and "television programming also includes program identification codes incorporated into the program signals." It is clear from these definitions, that television programming does not include enhancements to television programming or enhanced content such as interactive TV, which are supplemental additions that are controlled externally from the television receiver.

Claim 10 of the Huber application relates to the interaction of a personalized remote with a set-top box and specifically refers to "controlling the interactive output of the set-top box". Controlling interactive output of a set-top box, such as set forth in claim 10, clearly distinguishes from the function of controlling a television receiver as disclosed in Nickum. Whereas Nickum states that the process represented by Figure 4 can be executed by "circuitry incorporated into an attached device such as a cable control box," Figure 4 does not encompass entire functions of the set-top box, and specifically fails to disclose or teach in any fashion, controlling enhanced content that is supplemental to the television programming such as interactive television provided by the set-top box. Nickum merely states with regard to Figure 4, that the specific processes that control interaction between the remote, with regard to the input verification

process of a user ID, may exist in the remote control device, the television receiver, or an attached device. Applicants claims are not simply directed to a parental channel lock, but a method and system to enhance and tailor the output of a set-top box to a particular individuals preference by using a personalized remote as the interface. For example, claim 10 recites: “provide enhanced interactive content based upon the identity of the current user of said personal remote control” and “controlling said interactive output of said set-top box by controlling said video content based on said preference and profile data”.

Claims 12 and 13 of the present invention relate to the recognition of a current user of a remote control device. Nickum does not teach recognition of the current user of the remote control device based upon a physical or intellectual attribute of the current user as set forth claim 10. Additionally, whereas Nickum states that a “remote control device for easier use by children may have larger and/or fewer keys, symbols (such as animal figures) instead of characters on the keys, and so forth”, this in no way states or implies that a particular individual can or cannot be using said remote. It is quite plausible that anyone, including an adult, might use the child's remote out of convenience and the disclosed embodiments of Nickum would be unable to distinguished the identity of the user. Thus, even if the set-top box assumes that a child is accessing the system by the fact that a child-designated remote is being used, there is no mechanism disclosed within Nickum to differentiate the identity of one child from another. The child remote disclosed in Nickum cannot distinguish one user from another simply by containing a unique cosmetic or childlike appearance.

Claim 14 relates to a process of empirically driving profile data for a particular user from the usage patterns of the remote control device by that user. Nickum does not teach the derivation of profile data in combination with the limitations set fourth claim 10. Additionally, the viewing environment described by Nickum is “controlled by both the restrictions defined by the programming control data as well as any restrictions they have defined for themselves in their profile.” In other words, the Nickum profile is limited to restrictions that are at sometime defined and programmed into the system by the user. There is no disclosure in the Nickum reference of any analysis or even recording of usage patterns of the user, and specifically no mention of responsive action based on usage to control video output. There is no teaching within

the Nickum reference of profile data that is empirically derived from the usage patterns of the remote control device by the current user, and no reference whatsoever to any type of learning of profiles within Nickum. Further, the Nickum reference is specific to “limitations” and “restrictions” and fails to mention in any way the idea of using preference data to enhance a viewing environment. For example, claim 14 recites: “empirically deriving said profile data from the usage patterns of said remote control device by said current user”.

Claim 44 of the present invention relates to the interaction of a personalized remote with a set-top box, and as with claim 10, specifically refers to controlling the interactive output of a set-top box. As stated above, controlling of the output of a set-top box is clearly distinguished from controlling a television receiver to select channels. The Nickum reference does not teach, as stated in claim 44, “controlling the display of enhanced video content”, supplemental to the television programming such as interactive television provided by the set-top box, and specifically fails to include the further limitation of “a set-top box that assigns preference and profile data corresponding to said current user to a current user database, and that assigns preference and profile data corresponding to said current user to said current user database, and that controls said display of said enhanced video content based on said preference and profile data within said current user database”. Nickum merely states that interaction between the remote, with regard to the input verification process of a user ID exists, and that “programming restrictions” may be stored in the remote control device, the television receiver, or an attached device.

Claims 46-48 have similar limitations and distinguish from Nickum for the same reasons set forth above.

### **35 USC 103(a) Rejections**

Claims 11, 15, 27-31, 45, 49, 62, and 64-67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nickum in view of Perlman (U.S. Patent No. 6,125,259).

Perlman discloses a television receiving apparatus that is selectively inhibited from displaying those television channels which are unacceptable or which are not authorized for viewing. An unacceptable television channel is defined as a program that satisfies predetermined

content ratings criteria, that is, those television channels broadcasting television programs which are identified as having violence, nudity, obscenity or other undesirable content. This program content is determined by rating data or a ratings code that is given to each entire program based upon the average intensity and occurrence rate of undesirable events. If the rating data is equal to or greater than the pre-stored ratings code, the television receiving apparatus is inhibited from displaying the selected television program.

Claim 11 of the present invention relates to controlling the interactive output of a set-top box by comparing tags, placed in the video stream that indicate the content of the video stream, with preference and profile data within a current user database. Nickum nor Perlman fail to disclose or teach, in any manner, the process of controlling the interactive output of a set-top box or comparing tags placed in the video stream that indicate the content of the video stream or comparing tags to preference and profile data within the current user database or any of these limitations in combination with the limitations set forth in claim 10. For example, claim 11 recites: "controlling said video content based on comparing said tags placed in said video stream that indicate content of said video stream to said preference and profile data within said current user database".

The Perlman disclosure is merely a parental channel lock that utilizes rating data to block entire programs rated as unacceptable. The rating data disclosed in Perlman and the programming control data described in the Nickum, are an overall rating code that represents and the average frequency of occurrence above an average level of intensity of acts that occur during an entire program (e.g., acts of violence, nudity or profanity). The rating codes are used in the same way that motion picture rating designations are used to classify movies according to overall content (e.g., G, PG, PG-13, R and X). The television program or motion picture may attain a specific rating such as R for a single act that may encompass only a few moments of the entire program. Therefore, it would be beneficial to increase the level of scrutiny to specific scenes and events that may occur in the programming and alter the program in an appropriate manner to enhance or detract from specific events.

Rating data and programming control data lack the level of detail and sophistication that tags provide. Perlman only discloses and teaches the use of video segments of a video stream,

preference data with an allowable rating code during a particular time period. The claimed invention allows the user to enhance and/or limit content based upon actions that occur within the program on a segment-by-segment basis thereby giving the user much greater enhancement and control possibilities. The problem solved by the presently claimed invention is not recognized in the art. For example, claim 10 recites the ability to “provide enhanced interactive content” and “controlling said interactive output of said set-top box by controlling said video content based on said preference and profile data”, furthered with the limitations recited in claim 11 of “controlling said video content based on comparing said tags placed in said video stream that indicate content of said video stream to said preference and profile data within said current user database”.

Claim 15 of the present invention relates to video content that is pretagged to indicate content of the video stream prior to being input into said set-top box. Whereas Perlman discloses that EPG data is sent from the headend, from the above description it is clear that the electronic program guide is not a tag as defined in the present invention. Where a tag is a descriptor of the specific video and/or audio content of a specific segment (i.e., content, words, acts etc.), EPG data contains general programming information a particular program such as channel number, start time, duration, name, type and program summary.

Claims 27, 28-31, 45, 49, 62 and 64-67 have similar limitations and are distinguished from Nickum in light of Perlman for the same reasons set forth above.

Claims 32-34 recite tags being created in real time by video recognition techniques utilizing key words, images and sounds. Neither Nickum nor Perlman disclose or teach in any fashion any of these video recognition techniques, especially in combination with the limitations set forth claim 27.

Claims 68-70 recite tags being created in real time by video recognition techniques utilizing key words, images and sounds. Neither Nickum nor Perlman disclose or teach in any fashion any of these video recognition techniques, especially in combination with the limitations set forth claim 62.

Claims 71-87 have been added to include a method and system for controlling displayed video segments and data content utilizing a remote control device that interacts with a set-top

box to provide selective programming based upon the identity of the current user of said personal remote control by comparing tags placed in the video stream that indicate content of said video stream on a segment-by-segment basis to said preference and profile data within said current user database. This set of limitations is also unique in light of Nickum as well as Nickum in light of Perlman by the fact that neither Nickum nor Perlman teach controlling the interactive output of a set-top box or comparing tags placed in the video stream that indicate content of the video stream or comparing tags to preference and profile data within the current user database. More specifically, Nickum and Perlman fail to disclose or teach “controlling said display of said video segments of said video stream by controlling video content of said video stream based on a comparison of said preference and profile data with tags that are placed in said video stream that indicate said video content of said video segments on a segment-by-segment basis” or “controlling said video segment content based on comparing tags placed in the video stream that indicate video segment content of said video stream on a segment-by-segment basis to said preference and profile data within said current user database”.

Neither the patents cited in the outstanding Office Action, nor any other evidence of record, establishes a *prima facie* case of obviousness. Even assuming *arguendo* that the Nickum and Perlman references could be combined, the disclosures establish the following:

The Nickum reference “limits the viewer’s access to television programming”, and therefore, bases restriction of television viewing at the program level. Perlman discloses “inhibiting television channels which are not authorized for viewing”, and therefore, bases restriction of television viewing at the channel level. These two restrictions are inherently mutually exclusive of one another. This combination of references proposed in the Office Action would have changed the principals of operation of the devices shown in the references. This combination of references would also render the construction of the references inoperable for their intended purposes. Because of these incompatibilities, the proposed combination would not have been expected by those skilled in the art to be successful. Additionally, there was no motivation or suggestion in the art, as of August 25, 2000, that would have prompted one skilled in the art to make the combination.

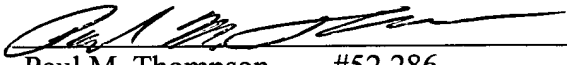


Application No. S/N 09/941,148  
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For these reasons, this application is considered to be in condition for allowance and such action is earnestly solicited.

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THE LAW OFFICES OF WILLIAM W. COCHRAN, LLC

By:   
Paul M. Thompson #52,286  
Attorney/Agent for Applicant  
3555 Stanford Road, Suite 230  
Fort Collins, CO 80525  
(970) 377-6363  
Fax: (970) 207-1985



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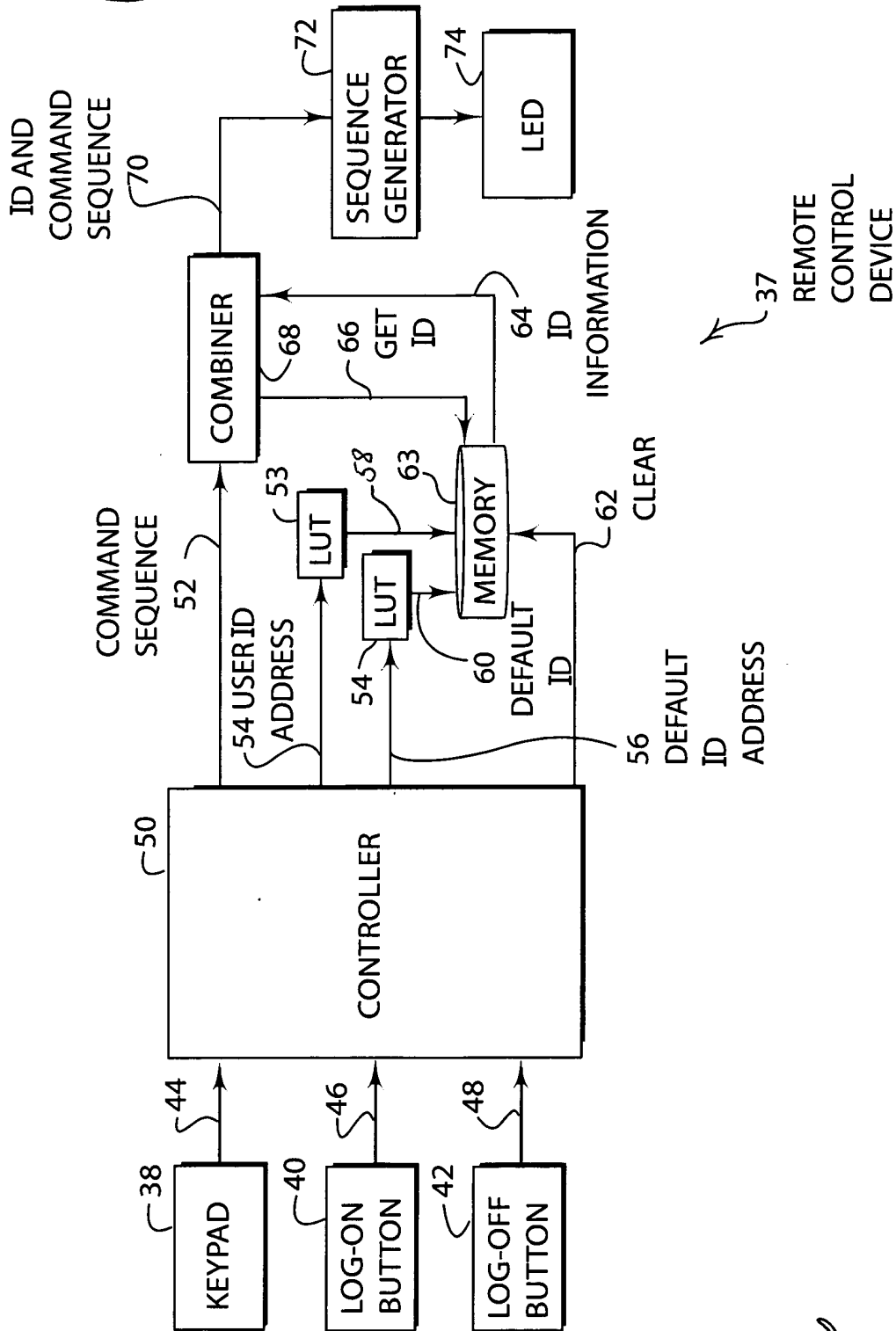


FIGURE 3

approved  
10-9-03